



Mid-America Grain Study: Upper Mississippi River Implementation

Start Date: Jun 2005

Projected End Date: Sep 2006

Lead Researcher(s):

Richard Manguno, CEMVN

Problem Addressed:

Current Corps economic models designed to assess the potential benefits of proposed navigation projects rely heavily on assumptions about demand (i.e. how much the waterways will be used by shippers). These assumptions relate in large part to how shippers will respond to changes in transportation costs and times. Estimates of benefits from improving the waterways vary considerably depending on the assumptions that are made.

Objective:

The goal of this investigation is to incorporate the results found in "Shippers Responses to Changes in Transportation Costs and Times: the Mid-America Study" authored by Kenneth Train and Wesley Wilson into the framework of the existing economic system model ESSENCE. The ESSENCE model was one of two economic models used in the Upper Mississippi River-Illinois Waterway System Navigation Study completed in 2004. The ESSENCE model in its current form specifies a demand for transportation that allows for the possibility that shippers might reduce their desired quantities of water transportation at rates less than their next best transportation alternative. However, due to a lack of definitive data on the precise magnitude of this response, evaluations to date have relied on assumed values to complete the demand specification. The Train and Wilson paper generates data that can be used to fill the recognized data gap, but the paper presents a representation of grain transportation demand that is significantly more complex than the representation of transportation demand that can be currently accommodated in ESSENCE. Consequently, structural and input changes to the ESSENCE model will be implemented so as to capture the fundamental results of the Train and Wilson investigation.

Benefits:

A properly specified and empirically based shippers' demand for water transportation will enable the Corps to improve its economic models and better estimate projected benefits related to waterway improvements.

Status:

In Progress

Contract Data:

130465, W0520

Progress:

[Presentation by Dr. Wes Wilson, Jul 1,2004](#)
(105 KB, ppt)

[Presentation by John Carr, Feb 21,2006](#)
(6.2 MB, ppt)

Products (Bookshelf/Toolbox):

[Paper by Dr. Donald Sweeney, Jul 1,2005](#) (130 KB, pdf)

[Paper by Drs. Kenneth Train & Wes Wilson, Sep 1,2004](#) (40 KB, pdf)



Contact:

Richard Manguno, CEMVN
Richard.J.Manguno@mvn02.usace.army.mil

Related Links:

[Shippers Responses to Changes in Transportation Rates and Times: The Mid-American Grain Study](#)

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